AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings in the application:

Listing of Claims:

1. (original) An apparatus, comprising:

a substrate defining a plane;

a first conducting plate substantially normal to the substrate; and

a second conducting plate substantially normal to the substrate and deformable in response to a pressure.

2. (original) The apparatus of claim 1, wherein the substrate is associated with a microelectromechanical system wafer.

3. (original) The apparatus of claim 1, wherein the second conducting plate is deformable in a direction substantially in the first plane.

4. (original) The apparatus of claim 3, wherein the two conducting plates are electrically isolated, and the pressure is to be measured based at least in part on capacitance between the two conducting plates.

5. (original) The apparatus of claim 4, wherein a voltage level is associated with at least one of the conducting plates.

6. (original) The apparatus of claim 1, wherein the first conducting plate is also deformable in response to the pressure.

7. (original) The apparatus of claim 6, wherein the conducting plates comprise diaphragms.

8. (original) The apparatus of claim 1, wherein the substrate includes at least one of: (i) a silicon layer, (ii) an oxide layer, and (iii) a bonding layer.

9. (original) . The apparatus of claim 1, wherein the substrate is bonded to a backing wafer.

10. (presently withdrawn) An apparatus, comprising:

a substrate defining a first plane;

a first finger, including a first pair of conducting plates, wherein at least one of the conducting plates is substantially normal to the substrate and deformable in response to pressure, and wherein a vacuum is provided between the first pair of conducting plates; and

a second finger, including a second pair of conducting plates, wherein at least one of the conducting plates is substantially normal to the substrate and deformable in response to pressure, and wherein a vacuum is provided between the second pair of conducting plates.

11. (presently withdrawn) The apparatus of claim 10, wherein the first pair of conducting plates is electrically isolated from the second pair of conducting plates.

12. (presently withdrawn) The apparatus of claim 11, wherein pressure is to be measured based at least in part on capacitance between the fingers.

13. (presently withdrawn) The apparatus of claim 12, wherein (i) the first finger is part of a first comb having a plurality of fingers that are electrically coupled to each other, and (ii) the second finger is part of a second comb having a plurality of fingers that are electrically coupled to each other and electrically isolated from the fingers of the first comb.

14. (presently withdrawn) The apparatus of claim 13, wherein fingers of the first are second combs are interleaved.

15. (presently withdrawn) The apparatus of claim 14, wherein the combs form an array of capacitors connected in parallel.

16. (presently withdrawn) The apparatus of claim 12, wherein the measured pressure is an absolute pressure.

17. (presently withdrawn) The apparatus of claim 12, wherein at least one of the conducting plates is deformable in response to a first pressure and at least one of the conducting plates is deformable in response to a second pressure, and wherein the measured pressure is associated with the difference between the first and second pressures.

18. (presently withdrawn) The apparatus of claim 12, wherein an increase in pressure is associated with a decrease in capacitance.

19. (presently withdrawn) The apparatus of claim 12, wherein an increase in pressure increases a distance between one of the conducting plates of the first finger and one of the conducting plates of the second finger.

20. (presently withdrawn) The apparatus of claim 12, wherein air acts as a dielectric associated with the capacitance.

21. (original) A method, comprising:

providing a voltage to one of a first conducting plate and a second conducting plate, the first conducting plate being substantially normal to a substrate defining a plane and the second conducting plate being (i) electrically isolated from the first conducting plate, (ii) substantially normal to the substrate, and (iii) deformable in response to pressure; and

measuring pressure based at least in part on capacitance between the two conducting plates.

22. (presently withdrawn) A method, comprising:

on a wafer that includes a first non-conducting layer bonded onto a conducting layer, etching substantially parallel trenches through the layers to form a plurality of conducting plates substantially normal to a plane defined by the wafer, wherein at least one conducting plate is to be deformable in response to pressure; and

bonding a second non-conducting layer onto the first non-conducting layer.

23. (presently withdrawn) The method of claim 22, wherein pairs of conducting plates form fingers.

24. (presently withdrawn) The method of claim 23, wherein a first set of fingers is formed on a first comb and a second set of fingers is formed on a second comb, the fingers of the first and second combs being interleaved.

25. (presently withdrawn) The method of claim 24, further comprising:

etching away a portion of the second non-conducting layer and the first non-conducting layer to expose a portion of the conducting layer.

26. (presently withdrawn) The method of claim 25, further comprising:

creating a vacuum within a finger.

27. (presently withdrawn) The method of claim 25, further comprising:

bonding a cap wafer onto the second non-conducting layer.

28. (presently withdrawn) The method of claim 27, wherein the cap wafer includes at least one of: (i) a ground via, (ii) a voltage via, (iii) a first pressure via, and (iv) a second pressure via.

29. (presently withdrawn) The method of claim 22, wherein at least one pressure input cavity is formed while etching the trenches.

30. (original) A system, comprising:

a microelectromechanical system pressure sensor, including:

a substrate defining a plane,

a first conducting plate substantially normal to the substrate, and

a second conducting plate substantially normal to the substrate and deformable in response to a pressure; and

a pressure dependent device.

31. (original) The system of claim 30, wherein the pressure dependent device is associated with at least one of: (i) a pressure display, (ii) a tire pressure monitor, (iii) an ultrasonic transducer, (iv) a blood pressure sensor, and (v) a barometer.

32. (original) An apparatus, comprising:

a substrate defining a plane; and

a deformable plate substantially normal to the substrate and deformable in response to a pressure.

33. (original) The apparatus of claim 32, wherein an amount of resistance associated with the deformable plate varies with stress.

34. (original) The apparatus of claim 33, wherein the substrate is associated with a microelectromechanical system wafer.

35. (original) The apparatus of claim 34, wherein the deformable plate is a diaphragm deformable in a direction substantially in the plane defined by the substrate.

36. (original) The apparatus of claim 35, wherein the diaphragm is associated with at least one of: (i) piezoelectric characteristics, (ii) piezoresistance characteristics, (iii) an embedded device having piezoelectric characteristics, and (iv) an embedded device having piezoresistance characteristics.